

1-31. (CANCELED)

32. (NEW) An apparatus (1) for automatically dispensing products (2) that are at least one of voluminous, heavy and sold in packs, the apparatus comprising of at least one box (10) comprising at least one storage unit (30) for the products (2) comprising platforms superimposed in tiers and a means (40) for advancing at least one of the product (2) to at least one transfer zone (50), a transfer means (51) provided in the transfer zone (50) for receiving on a contacting plane the product (2) pushed by the advancement means (40) and transporting the product (2) from the storage unit (30) to at least one outlet orifice (60), a pushing means (70) for evacuating the product (2) outside the box (10) through the outlet orifice (60), a means (61) for blocking the outlet orifice (60) so as, when in a closed position, to prevent access to an interior of the storage unit (30), and, when in an open position, to allow the product (2) to exit, an anti-tampering means (56, 73) for preventing access to the interior of the storage unit (30) when the blocking means (61) is in the open position, and a means for monitoring the unit.

33. (NEW) The dispensing apparatus according to claim 32, wherein the blocking means comprises at least one trap door (61) connected to an actuation means (65), controlled by the pushing means (70), so as to open the trap door (61) in order to allow the product (2) to exit and close the trap door (61) once the product has exited.

34. (NEW) The dispensing apparatus according to claim 32, wherein the dispensing apparatus comprises at least one of a payment means (21) and a selection means (22) for at least one of the products (2) contained within the dispensing apparatus (1).

35. (NEW) The dispensing apparatus according to claim 32, wherein the tiers in the storage unit (30) consist of fixed platforms (31) each capable of receiving at least one row of the products (2).

36. (NEW) The dispensing apparatus according to claim 35, wherein each fixed platform (31) holds several rows of products (2) arranged side by side and separated by guide means (32).

37. (NEW) The dispensing apparatus according to claim 35, wherein the advancement means (40) pushes at least one row of products (2).

38. (NEW) The dispensing apparatus according to claim 37, wherein each row of product (2) comprises an advancement means (40).

39. (NEW) The dispensing apparatus according to claim 37, wherein the advancement means are common to several rows of products (2).

40. (NEW) The dispensing apparatus according to claim 37, wherein the advancement means (40) comprises at least one motor (41, 41') connected via at least one transmission (42, 43, 42', 43') to a pushing means (44) for pushing a corresponding row of the products (2).

41. (NEW) The dispensing apparatus according to claim 35, wherein each fixed platform (31) comprises a surface for rolling.

42. (NEW) The dispensing apparatus according to claim 35, wherein each fixed platform (31) is slightly inclined toward a rear end the transfer zone (50).

43. (NEW) The dispensing apparatus according to claim 32, wherein the transfer means (51) comprises at least one motor (52) connected to a movable platform (53) via at least one transmission (54, 55, 54', 55') in order to displace the movable platform (53) to the inside of the transfer zone (50) in front of the fixed platforms (31) of the storage unit (30) along guides integral with the box (10).

44. (NEW) The dispensing apparatus according to claim 40, wherein the transmission is selected from the group comprising at least a rack and pinion, an endless screw and bolt, a chain and pinion and a belt and pulley system.

45. (NEW) The dispensing apparatus according to claim 43, wherein the movable platform (53) defines a plane inclined toward a front facilitating separation of the product (2) pushed by the advancement means (40) from a row of remaining products.

46. (NEW) The dispensing apparatus according to claim 43, wherein the movable platform (53) comprising a surface for rolling.

47. (NEW) The dispensing apparatus according to claim 35, wherein the fixed platforms (31) in the storage unit (30) comprise, in front, a downwardly inclined ramp (34) for pushing the product (2) held by the movable platform (53) onto the platform when it is displaced downward.

48. (NEW) The dispensing apparatus according to claim 47, wherein the inclined ramps (34) decrease in length from an upper platform towards a lower platform.

49. (NEW) The dispensing apparatus according to claim 35, wherein the movable platform (53) comprise a fixed base (53a) and a movable plate (53b), with a recall device (53c) disposed between the movable platform (53) and the movable plate (53b), and the inclined ramps (58) integral with the box (10) and located on the trajectory of the transfer means (51) opposite the fixed platforms (31) in the storage unit (30) cooperate with the movable plate (53b) by moving it closer to the storage unit (30) and facilitating removal of the product (2).

50. (NEW) The dispensing apparatus according to claim 49, wherein the inclined ramps (58) decrease in depth from a top to a bottom of the transfer zone (50).

51. (NEW) The dispensing apparatus according to claim 43, wherein the transfer means (51) comprises a plate (56) located in an upper portion of the movable platform (53), at a sufficient distance to allow the product (2) to be loaded between the plate and the movable platform (53) and at least partially constituting the anti-tampering means.

52. (NEW) The dispensing apparatus according to claim 32, wherein the outlet orifice (60) is located in a lower portion of the box (10) and the outlet orifice (60) comprises a sliding platform (62) outside the box (10) equipped with at least one ramp inclined towards a floor.

53. (NEW) The dispensing apparatus according to claim 33, wherein the trap door (61) covers at least the surface of the outlet orifice (60) and the actuation means (65) comprises at least one actuator (66) connected to the trap door (61) for displacing the trap door (61) parallel to itself between the open and closed positions.

54. (NEW) The dispensing apparatus according to claim 33, wherein the pushing means (70) comprises at least one actuator (71) connected to a pushing device (73) defining at least one contact surface for contacting the product (2) to be discharged.

55. (NEW) The dispensing apparatus according to claim 45, wherein an axis of the actuator (71) is generally parallel to the plane of the transfer means (51) and the

contact surface of the pushing device (73) is flat and extends generally perpendicular to the plane.

56. (NEW) The dispensing apparatus according to claim 54, wherein the pushing device (73) blocks the outlet orifice (60), when the trap door (61) is in the open position, and constitutes at least part of the anti-tampering means.

57. (NEW) A dispensing apparatus for automatically dispensing products (2), the dispensing apparatus comprising:

a housing (10) enclosing at least one storage unit (30), each of the at least one storage units (30) having at least two platforms vertically arranged in tiers, each of the tiers having an advancing mechanism (40) for advancing at least one of the products (2) to a transfer zone (50);

a transfer device (51) having a platform, located in the transfer zone (50), for receiving the product (2) advanced by the advancing mechanism (40) and transferring the product (2) from the transfer zone (50) toward an outlet orifice (60);

a pushing device (70) for pushing the product (2) through the outlet orifice (60) to an exterior of the housing (10);

a blocking mechanism (61) which, when in a closed position, preventing access to the storage unit (30) and, when in an open position, allowing the product to exit an interior of the housing (10);

an anti-tampering mechanism (56, 73) preventing access to the interior of the housing (10) when the blocking mechanism is in the open position; and

a monitoring device for monitor at least one of a function and a status of the dispensing apparatus and the box (10) is isothermal.

58. (NEW) The dispensing apparatus according to claim 57, wherein the dispensing apparatus comprises a thermal regulation means (3, 4, 5) for the interior space defined by the isothermal box (10).

59. (NEW) The dispensing apparatus according to claim 32, wherein the dispensing apparatus comprises a recycling container (80) adjacent to the box (10) equipped with at least one inlet orifice (81) for receiving empty packaging from the products (2).

60. (NEW) The dispensing apparatus according to claim 59, wherein the inlet orifice (81) comprises a trap door access (82) that moves between a closed position and an open position.

61. (NEW) The dispensing apparatus according to claim 60, wherein the trap door access (82) is connected to an actuator (83) controlled by the regulating means.

62. (NEW) The dispensing apparatus according to claim 59, wherein the recycling container (80) comprises means for compacting the empty packaging.